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Original

**PARTICIPACIÓN DEPORTIVA, HÁBITOS DE VIDA Y
DETERMINANTES DE LAS ESTUDIANTES DE JORDANIA: UN
ANÁLISIS CUALITATIVO**

**SPORT PARTICIPATION, LIFESTYLE HABITS AND
DETERMINANTS OF FEMALE STUDENTS FROM JORDAN- A
QUALITATIVE ANALYSIS**

Kanaan, E. M.¹; Ahmed, M. D.²; López-Sánchez, G. F.³

¹*University of Sharjah, United Arab Emirates.*

²*Department of Humanities and Social Sciences. Prince Mohammed Bin Fahd University. Al-Khobar, Kingdom of Saudi Arabia.*

³*Vision and Eye Research Institute, School of Medicine, Faculty of Health, Education, Medicine and Social Care, Anglia Ruskin University, Cambridge, UK.*

Correspondence to:
Dr. Md. Dilsad Ahmed.
dilshadsportspsychology@gmail.com
Dr. Guillermo Felipe López-Sánchez.
guillermo.lopez-sanchez@aru.ac.uk

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Martos (Spain)*



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RESUMEN

La universidad es un período crucial en el que los estudiantes a menudo desarrollan comportamientos que conducen a estilos de vida poco saludables acompañados de una disminución de la actividad física (AF) y la participación deportiva. El primer objetivo de este estudio fue investigar la participación deportiva y los hábitos de vida de las estudiantes universitarias. En segundo lugar, nuestro objetivo fue identificar los posibles determinantes de la participación en deportes y AF. Por último, el estudio obtuvo ideas y recomendaciones productivas para maximizar la participación de los estudiantes en los deportes y la AF. Utilizando un grupo focal semiestructurado guiado por siete preguntas, se realizaron nueve entrevistas a N = 90 estudiantes universitarias jordanas. Se invitó a participantes de diversas disciplinas de estudio, con una edad media de $18 \pm 0,24$ años. Los datos se analizaron (enfoque temático inductivo) mediante métodos manuales, destacando que el 56,7% de las estudiantes no participaba en ninguna modalidad de AF. Además, el análisis identificó cuatro barreras prominentes que impedían a los estudiantes participar en deportes y AF: falta de tiempo, falta de instalaciones y clubes deportivos, religión y cultura, actitudes negativas hacia el deporte, accesibilidad. Además, nuestro estudio descubrió que todas las estudiantes poseen teléfonos inteligentes, de las cuales el 43,2% (> 6 horas) y el 16,2% (entre 4 y 6 horas) utiliza las redes sociales diariamente. En conclusión, este estudio recomienda que la administración universitaria priorice la concienciación sobre la AF entre los estudiantes y desarrolle estrategias adecuadas para abstenerse de utilizar excesivamente las redes sociales en el uso de teléfonos inteligentes.

Palabras clave: participación deportiva; estilo de vida; estudiantes universitarias.

ABSTRACT

University or college is a crucial period when students often develop behaviors that led to unhealthy lifestyles accompanied by decreased physical activity (PA) and sports participation. The first objective of this study was to investigate sport participation and lifestyle habits among female university students. Secondly, we aimed to identify potential determinants towards participation in sports and PA. Lastly, the study garnered productive ideas and recommendations to maximize student's participation in sports and PA. Using a semi-structured focus group guided by seven questions, nine interviews were conducted on N=90 Jordanian female university students. Participants were invited from a variety of study disciplines, with a mean age of 18 ± 0.24 years. Data were analysed (inductive thematic approach) using manual methods, highlighting that 56.7% of students did not participate in any form of PA. Furthermore, the analysis identified four prominent barriers which prevented students from participating in sports and PA: lack of time, lack of sports facilities and clubs, religion and culture, negative attitudes toward sports, accessibility. Additionally, our study discovered that all the female students possess smartphones, of which 43.2% (> 6 hours) and 16.2% (between 4-6 hours) used social media/day. In conclusion, this study recommends that the university administration should prioritize the awareness for PA among students and develop adequate strategies to refrain oneself from using excessive social media using smartphones.

Keywords: sport participation; lifestyle; female students.



INTRODUCTION

Lifestyle habits are linked with people's living conditions and their social positions. It drastically influenced by the culture and traditions in which a person lives, and this varies with various factors such as *economic conditions, unemployment, education, and social participation* (Lindstro, 2000). Physical activity (PA) is the key facilitator for embedding a healthy lifestyle among all age categories people. Regularity of PA especially among children and adolescents (*early, middle, and late*) is crucial for a healthy transition to adulthood life. Furthermore, it is vital to holistic development, fostering their physical, cognitive, and social health (Kostecka *et al.*, 2017). In the UK, children and young people are recommended to participate at least for 1 hour of moderate-to-vigorous physical activity (*MVPA*) /day (Department of Health, 2011). The decline in the PA leads to various health-related risks such as diabetes, arthritis, breast cancer, colon cancer, etc. (Kumar, 2017).

The Hashemite Kingdom of Jordan believes in the importance of a healthy and active lifestyle. As such, the Royal Society for Health Awareness established under the guidance of '*Her Majesty Queen Rania Al-Abdullah*' in 2005, motivate students for participating in sports and to promote a healthy and active lifestyle. It also enhances health awareness programs for local communities to pursue active lifestyle (Royal Health Awareness Society, 2017).

Today's young population invests considerable time of a day for using various electronic gadgets and online applications. Their usage mainly includes texting, internet surfing, Facebook, Twitter, and online gaming. In the USA, around 88% to 99% of adults (*of ages 18–29 years*) used the internet (Pew Research Centre, 2018). In 2019, of the approximately 10,203,134 population of Jordan, 9.5% of girls come under the age group of 20-24 years. This period of age groups always remains productive for developing talents for a nation (Department of Statistic, 2019). Surprisingly, in 2019, around 8,700,000 (85.3%) of girls from this age group found of using an excessive amount of internet in Jordan (Internet world stats, 2021). Literature reviews clearly highlight that there are both *positive* and *negative* aspects of using social media and technology. *Firstly*, for young people, it

enables them with freedom of speech, increases their learning proficiency and knowledge, and promotes communication and engagement with others. Additionally, it may be aided for creative exploration and extend platforms to them for thinking out of box innovation. On the downside of using excessive internet remain challenging for the assessment and interventions in healthcare. Because web-based technologies often lead to certain depressive symptoms (Välimäki, Anttila, Lahti, 2017), induced obesity, and suicidal thinking among youths. On the contrary, some disadvantages including excessive use of television and computer games reduce physical activity, increased sedentary lifestyle, and alleviate sound sleeping (Carson, Gansner, Khang, 2018). With the rapid development of technologies and improvements in the economy, children and adolescents are growing up in an obesogenic environment where most physical and outdoor activities are replaced by screen-oriented and sedentary activities which proliferate excessive weight gain in them, eventually leading to obesity (Zhang, 2017; Pearson, 2017; Saunders, 2014).

In recent years, the use of social media has gained tremendous momentum among higher education students. In this context, Al-Arjan (2011) study examined the association of screen time for elevating obesity and overweight among university students. Findings highlighted that prevalence of obesity is higher in females than their counterparts' male students. Results also showed that the obese students were more prone to watching television followed by lacked in doing regular exercise. In the United Kingdom, young people are early learners of all types of technology. Almost 88% of ages 16-24-year own a smartphone and spend most of the time of the day on media and communications (Ofcom, 2014). In another study Belton *et al.*, (2014) examined the development of a targeted PA intervention in the adolescent population. Their findings showed that most of the youth (67%) were not followed the minimum 60 minutes of daily recommended PA, and 99.5% did not achieve the fundamental movement skill proficiency which is expected for their age. Furthermore, 25% of youth reported a higher Body mass index (classified as overweight or obese). Self-efficacy and PA scores were significantly different between low, moderate, and high active participants. Active and inactive youth reported differences in



their perceived understanding of health and barriers to physical activity participation. Interestingly, active youth related the terms of nutrition, exercise, energy, and sports with the conceptualization of 'being healthy', while for the inactive youth this remained attributed primarily to the nutritional values only. The study of Omaire (2017) was conducted in Jordan, inviting $N=434$ participants. The study aimed to identify the extent of the BMI categories (*obesity, overweight, normal weight, weight loss*), smoking, and physical inactivity promote a healthy lifestyle among students from the University of Applied Science. The results highlighted an increase in the prevalence of obesity by 23.96% when females reported with (34.97%) and males (14.28%). Further, the finding also highlighted that the percentage of non-exercise is elevated by 82.25%.

The interest to conduct this study emerged from the researcher's own observation from his academic career, excessive use of social media by university and school students and its related behavior, concern as a parent over the raising negativity towards exercising and health which eventually increasing the incidence of non-communicable diseases exponentially in the Jordan. An abundant of literature reviews show the evidence of overweight, obesity, lack of sport, and health activity enhancing among female university students. The World Health Organization (2020) emphasized the promotion of PA and finding strategies to curb the issues of obesity which is closely connected to the raise of various non-communicable diseases. Keeping in view the increasing rate of obesity among female students and the provided rationale, the present study identified three broad aims to address are delineated as follows, the *first* aim of this qualitative study was to investigate sport participation and lifestyle habits among Jordanian female university students. *Secondly*, we aimed to identify potential determinants of their participation in sports and PA. *Lastly*, the the study garnered productive ideas and recommendations to maximize student's participation in sports and PA.

METHODS

Participants

This qualitative study invited *ninety* female students to participate from the Yarmouk University of Jordan. To garner participants' responses, focus group discussions were conducted. All participants were registered with the "Thinking Skills Course" which is an optional course for all students that adheres to the university requirements. Data were gathered in the academic year of 2019/2020. Participation in the study was totally voluntary and without any coercion. Possible participants were approached face-to-face, by telephone, or by email.

Procedure

Semi-structured interviews were implemented as a tool for this study to obtain new information on students' behavioral habits, sports participation, and determinants. Furthermore, interviews were held until saturation of new detail was garnered. To ensure no information is missed, the researcher conducted an additional focus group followed by theoretical saturation. All focus groups were conducted either in the conference room, empty classroom or in a hall per the participant's convenient date and time. The interview questions were designed based on reviewing educational literature including studies previously conducted in the same research area (Al-Arjan, 2011; Omaire, 2017).

The semi-structured questions guide was validated by an arbitrator committee. Members of the committee were familiar with facilitators and concerns about physical education. The questions guide to disseminate the interviews were devised using the appropriate literature and with the collaboration of experts who were proficient of locating focus group with years of experiences (Kruger, 1998). Questions to conduct the focus group were designed per Kruger's (1998) recommendations. The initial format of the interviews consisted of *thirteen* questions that have been designed after minute verification. After confirming its *applicability, readability, and clarity*, some questions were modified and a few of them were deleted (*with 95% agreeing by arbitrators*). After the arbitration process, the tool included *nine* questions. The researcher also verified the stability of the tool through qualitative research procedures as defined by Cohen, Manion, Morrisson



(2000). Using the set of nine items, a total of 8 semi-structured interviews were conducted by the end of the process.

Table 1. Focus group question guide

Question type	Question
Opening	1. "What is your name and where are you from?"
Introduction	2. "Describe a healthy person"
Transition	3. "Do you practise physical activity regularly? (Yes or no). If it is 'Yes', then, a. level of physical activity b. what type of activity c. and how often they perform it)
Key	4. "If you do not practice PA, please describe why?" 5. "Do you use mobile phones with internet?" If it is 'Yes', then, - what type of social technology do they used?" 7. "What is the duration of usage". 8. "What social media do you use and describe the reason for choosing it?"
Ending	9. "Do you have any other remarks, suggestions, additions?"

Data Collection and Analysis

Ethics statement

Permission to conduct this study was obtained from the Curriculum and Instruction Department of Yarmouk University. Before starting the focus groups, the researcher explicitly explained the aim of the study and asked the participants if they have any questions. Further, an informed consent form was signed by all the participants, anonymity and confidentiality were assured. The study obliged all institutional ethical standards of the responsible committee on human experimentation. Further, the study also followed the ethical guidelines of the Helsinki Declaration of 1975, as revised in 2000.

To conduct the focus group interviews researcher discussed the study's aims and significance with the interviewees. Besides, all the interviewees were assured that their responses will be kept confidential and will only be used for research purposes. To ensure a safe and interactive environment, the researcher set the interview time and venue per the convenience of the participants. Interestingly, the majority of studies choose university campuses as their favorite site for interviews. The other remaining

participants preferred to visit either researcher's office or were interested to attend the session through the Zoom application. The COVID-19 remained an interruption to conduct the interviews. This led to a little late (15/02/2020 to 15/5/2020) for conducting interviews, especially for the female study. Therefore, necessary adjustments in terms of location and time were initiated if students needed. The researcher recorded participants' responses with an electronic recorder and manually. The researcher blanked the interviews or separated the papers to distinguish each of the interviews from another. It enriched readability and initiate prompt validation of the findings.

Data Analysis

SPSS 20 was used to calculate descriptive statistics (*frequency, and percentages*) of the focus group sample. Data obtained from the audiotapes were transcribed verbatim in Microsoft Word using Express Scribe and Windows Media Player. Data (quotes) were systematically identified and grouped together by means of an open coding system (content analysis) (Silverman, 2004). Further, themes were derived from the data, *i.e.* similar codes were grouped together into more general concepts (subcategories) to further categorized them into main categories. This approach also allowed us to identify moderating factors that influence the strength of the relation between the determinant and the independent variable (MacKinnon *et al.*, 2007). Two independent researchers were invited to analyze the data and to ensure the reliability of coding. To get the consensus on any doubts or disagreements (*if raised*) for which two more researchers were invited for reviewing it. Further, the process continued until consensus was reached. Using the inductive content analysis method, helped us to encode all the quotes manually of the interviews.

RESULTS AND DISCUSSION

The *first* objective of this qualitative study was to investigate sport participation and lifestyle habits among Jordanian female university students. *Secondly*, the study aimed to identify potential determinants (*excessive use of social media technology, duration of usage*) of their participation in sports and PA. *Lastly*, the study garnered productive ideas and recommendations to maximize



student's participation in sports and PA. Elaboration of both the categories is presented delineated below.

Level of Physical activity (n=27)

Interviewees were asked, "whether they practice physical activity regularly (yes or no)?" If it is 'yes' then (*what type of activity they do and how often they perform it*), and if 'no', then they were asked for its reasons? Around 56.7% of participants responded of not doing any type of PA, while 24.3% mentioned participation in regular PA.

Frequency for Physical activity (n=27)

On asking how often the students participated in PA, only $n=8$ do sport every day or once in every two days. A total of $n=12$ students participated in sport once a week or once every two weeks. This finding may be attributed to the perception of devaluing the healthy lifestyle or lack of awareness about the importance of an active lifestyle by the Jordanian women. In conjunction with this finding, Al-Arjan's study also highlighted the lack of physical exercise remains a key determinant for elevating obesity and overweight among women in the northern part of Jordan than their counterpart male students.

Types of sports (n=27)

Of the ninety participants only twenty-seven provided information on their level of PA. Participants preferences for the type of sport is as follows, $n=21$ participants were associated with athletics (*walking and running*), $n=12$ remained with badminton, $n=9$ basketball, $n=3$ volleyball, and $n=3$ was in football.

What demotivate female students to participate in physical activity?

Analysing the data for determining the reasons "*what demotivate female students to participate in PA*" provided with four key determinants which are delineated below

Lack of time

Around 59% of students reported "*lack of time*" to be the key determinant for their non-participation in any

type of. Some of the interviewee's quotes are mentioned below

[ID1: "*home duties, I am the oldest girl in the house, this required from me to help in doing all housework*", ID2: commented as "*lack of time because I get up early in the morning and I came to the university and stay until 3.30 in the afternoon*". Another student mentioned that ID3: "*teaching my youngest sister and follow their homework is my duties*"].

The above quotations provided an idea about the amount of workload received by the Jordan students from their families. In this context, Kim, et al, (2006) study reported that 60% of adolescent girl's students reported that lack of time and motivation, and tiredness to be the key barriers for them to participate in any form of PA and sport. In this respect, Kelly, et al., (2012) study showed that participating in sports and PA requires considerable efforts has been accounted as a reason by the female students. Further, they revealed it is easier to stay at home and watch television or use computers rather than investing such a rigorous effort for participating in PA.

Lack of sport facilities and clubs

Most interviewees showed concern for the lack of playgrounds, equipment, closed halls, and clubs in their vicinity or close to their homes which restrict them to participate in PA. Keeping this view in concern interviewees narrated as delineated below,

[ID4: "*lack of clubs in our area, besides lack of equipment*". ID5: "*Any facilities might be available for boys more than girls*". ID6: "*lack of a special play area suitable for girls to participate in physical activity is a problem*" and ID7: "*The society does not accept girls practising physical activity in the road*"].

These findings may link to the lack of closed halls or stadiums in the northern part of Jordan. Reportedly, the northern part has only one sports centre (*Al-Hassan Sports Centre*), it serves more than one million and three hundred thousand people. Unfortunately, managing such a huge population with just one sports centre is practically not possible. Therefore, this lacuna reduces people's motivation to



participate in any form of PA. Supporting this finding, Sothorn, *et al.*, (1999) highlighted the accessibility to the practicing site significantly encourage and motivate people to engage in PA and is a pivotal factor for making it a friendly environment. Similarly, the study of Lee, *et al.*, (2016) discovered the strong link between the accessibility of sports facilities and the participation of young people in PA. Furthermore, it also emphasized that the accessibility to the sports facility to be of short distanced to elevate active participation. A positive association between access to facilities and participation in PA by young people (Biddle *et al.*, 2007) study. Similarly, Kelly, *et al.*, (2012) study also highlighted that “*Physical activities have to be easy to get to*”.

Negative attitudes towards sport

Our analysis identified that around 45% of participants did not like to participate in any form of PA. On asking the reasons for their dislikes, interviewees mentioned the following concerns as listed below.

[ID8: “*I don’t like sport because the physical education teachers in school did not encourage us to love sport, in addition the school facilities in that time were not encouraging*”. ID9: said that “*I didn’t practise physical activity in early stage, teachers never taught us the benefit of sport, PE lesson were not implemented*”]. ID10: said that “*the PE lesson in school was not taught and usually was replaced with an academic subject such as English and maths*”

The above quotations clearly illustrate the importance of embedding physical education starting from early school age. Mismar & Alhaj Saleh (2013) emphasize the role of the PE teacher in disseminating quality physical education for prioritizing a holistic approach in a school setting. Further, its incorporation encourages students to actively participate in sports and recreational activities which help enabling them to stay healthy and fit. This finding is also aligned with the Heiknaro-Johansson *et al.*, (2005) study highlighted that the teaching in physical education should be enjoyable enough to motivate students for their active participation. Because close enjoyment link with physical activity that maximizes a healthy lifestyle (Bogatay, 2002). Also, the researcher considered school physical education has a vital role

in promoting positivity for physical activity among adolescents. The UNESCO emphasized regularizing physical education as a mandatory subject in school curricula. Especially, it prioritizes a wide range of activities that should be made enjoyable for students that may encourage them to continue the activity outside the school as well. As such, the new Jordanian school guidelines for physical education can incorporate such strategies to motivate students for promoting health-enhancing activities.

Religion and cultures

$N=83$ interviewees mentioned that religion and culture to the prominent determinants that effected their participation. Some of the comments received from the interviewees are as follows:

[ID11: mentioned that “*doing physical activities in an open area clashes with my religious believes*”. ID12: commented as that “*I am unable to participate in physical activity if I can be seen by man*”. ID13: said “*she rejects the wearing of some sport clothing as it is immodest*” Another interviewee (ID14) mentioned that “*the view of society does not encourage girls to participate in physical activity, they have negative perceptions*”].

The above quotations clearly illustrate the limitations on girls lead down by culture and society. Islam encourages boys and girls to participate in all kinds of physical activities (*swimming, shooting, fencing, and horse riding, etc.*) that should be performed with modesty, an appropriate environment, and certain guided norms. Islamic values prioritized the practice of sports and physical activity which led to a healthy and active lifestyle, however, there are rules which Muslims should observe when performing them including they cannot practice in a mixed-gender environment. In other words, men and women can practice any type of PA together in a commonplace (Kanan, 2002). As such, Dwyer *et al.*, (2003) agreed with the above quotations commenting culture does not provide equal opportunities for participating in PA, girls are not encouraged to wear sports clothing in public places. Interestingly, most of the interviewee ($n=73$) explained that parents provided them with a lot of support to practice PA. In this context, some of the participants revealed as below.



[ID15: “my parents have positive attitudes towards sport, my dad usually takes me for walk” ID16: said that “they do not reject me playing sport, they support me to participate”. ID 17: said that “my parents support my doing sport as long as it is safe, and I am careful” and ID18: “my dad always encourages us to practice physical activity rather than setting and using mobile phone”]

Use of social media and technology

For this theme, students were asked whether they used mobile phones, internet (‘Yes’ or ‘No’). If it is ‘yes’ then what type of technology did they use, the duration of its usage, and the reasons for selecting that particular technology? Surprisingly, all the participants (100%) used mobile phones accessed with internet connection. This result clearly highlighted the increasing influence of using electrical gadgets among female students at Yarmouk University. A similar trend has been observed in other studies as well conducted around the world. For example, in the UK OFCOM, (2018) discovered 98% of adults aged 16-24s go online excessively.

Duration of using social media

Interviewees were asked to specify the amount of time they invest in using social media (duration in hours /day). Around (43.2%) of students reported spending more than 6 hours/day for surfing the internet, while only 8.1% used it between 1-2 hours/day (table 2).

Table 2. Student’s duration of social technology use and frequency with percentages

Hours of technology use	Youth students	
	Frequency	Percentage
1-2	9	8.1 %
2-4	15	13.5 %
4-6	18	16.2 %
Above 6 hours	48	43.2 %

The above table highlighted information about the student’s usage of social media technology which ranges from one to two hours in minimal and goes above six hours as maximum/day. This result is similar to the trend identified with several places of the world for using social media. Over the past

several years the biggest shifts in young people’s behavior have been identified for the use of online media and communications. Particularly, in the UK, the use of smartphones has opened a new world of swift in terms of flexible communications and access to media. New technologies bring both challenges and opportunities. The risks are widely discussed but the opportunities less so.

Most exploring social media types

The interviewees were asked to specify what type of social media they used mostly. Their responses are provided in table 3.

Table 3. Students preferences for using social media sites with percentages.

Types of social media	Students	
	Frequency	Percentage
Facebook	63	56.7 %
WhatsApp	58	52.2 %
Instagram	23	20.7 %

Table 3 depicts that 56.7 % of participants used Facebook, 52.2 % WhatsApp and 20.7 % actively used Instagram. On asking the interviewees for the reason for using these social media sites they provided the following comments as summarized below

- Communicate with my friends. One interviewee reported that “I use the social media to communicate with my school mate and my friends in the university”.
- Watching videos related to cooking, and movies. For this, the interviewee commented that “learn how to cook food”?
- Doing my university homework and help my sisters in their studies. In this context, a interviewee revealed as “doing share with my friend to do university project and follow up our duties”.
- Watching useful information and improving my thinking skills. For this an interviewee said that: “I am using the social media to collect data that I could benefit in my studying such as ways to deal with kids and types of learning activities that I could use”.

Female students at Yarmouk university did not take the help of social media to increase their physical fitness, exercise habits, and tips about active living,



rather they invested all their time in surfing the internet for Facebook, WhatsApp, and Instagram. In this respect Biddle & Mutrie, (2007) emphasized that technology can function as supporting tool in a safe training process for promoting wellbeing and developing a habit of regular exercises.

CONCLUSIONS

In conclusion, this study showed inconsistencies in the participation of PA deterred by excessive use of mobile phones and social media among female students. Proximity to sports location, lack of facilities (*equipment, play area for girls, closed halls, stadium*) and time to participate in PA because of workload in families, the triviality of the subject in school curricula in comparison to English and maths, inadequate encouragement from school and PE teachers for sports participation, unawareness about its benefits were identified as some of the major determinants for students to participate in PA. Further, religious, or cultural barriers were also remained as the prominent barrier for PA participation. Despite their parents supported for participating in sports, they precepted wearing of sports consume during practice consider as immodest for which their society does not encourage girls to participate in PA. In this context, the cooperation of Yarmouk University and the Royal Health Awareness Society warrants high prioritization for advocating awareness programs on the benefits of female's students' active participation in sports and PA would remain irresistible.

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